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EXAMINER

ROSSI, JESSICA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/730,324

Applicant(s)

ERDOS ET AL.

Examiner

Jessica L. Rossi

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Parent Application 09/947,976 issued as US PAT 6,726,983 and therefore Applicant should update the specification accordingly.

Claim Objections

2. Claims 1 and 9-10 are objected to because of the following informalities:

In line 3 of claim 1, the examiner suggests changing “providing a first and second nonwoven fabric web” to --providing first and second nonwoven fabric webs-- to improve grammar.

In line 6 of claim 1, line 2 of claim 9 and line 2 of claim 10, the examiner suggests each occurrence of “between about” or “of between about” be changed to --of about-- to improve grammar.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 1, the first time the abbreviation CD is used it should be spelled out in full followed by the abbreviation in parenthesis. Thereafter the abbreviation can be used alone.

Regarding claims 3-4 and 9-10, it is unclear as to which nonwoven web Applicant is referring to - the first or the second? Applicant is asked to clarify.

Regarding claim 7, it is unclear as to how these limitations further limit claim 1, since claim 1 already established that a second nonwoven fabric web comprised of thermoplastic polymers was attached to the elastic film. Applicant is asked to clarify.

Regarding claim 8, it is unclear what Applicant means by "in the range of" the film melting point. Also note the lack of antecedent basis for "the range." Applicant is asked to clarify.

Regarding claim 11, it is unclear what Applicant means by after attaching "said nonwoven layer" to said elastic layer, since claim 1 establishes that *two* nonwovens are attached to the elastic. Furthermore, there is a lack of antecedent basis for nonwoven "layer" and elastic "layer" in claim 11, since claim 1 only refers to each nonwoven as a "web" and the elastic as a "film." Applicant is asked to clarify.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-4 and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivasan et al. (US 5567501) in view of Quantrille et al. (US 5804286).

With respect to claim 1, Srinivasan teaches a method of making a laminate elastic fabric, that can be used as a component in diapers and personal hygiene products, by providing first and

Art Unit: 1733

second nonwoven fabric webs 10a and 10b comprised of thermoplastic polymers (column 2, lines 66-67; column 3, lines 6-7), providing an elastic film 12 having a thickness within the claimed range (column 2, line 67; column 3, lines 11-13; column 4, lines 3-5; column 4, line 31; column 5, lines 4-6), positioning the elastic film between the nonwoven webs, in face to face juxtaposition, with the nonwoven webs and elastic film being in substantially relaxed and untensioned states (Figure 2; column 2, line 66 – column 3, line 1), and applying elevated temperature to affix the nonwoven webs to the film, the elevated temperature provided by contact with an engraved calendar roll 20a or 20b (column 2, lines 52-53; column 3, lines 1-3; column 3, lines 22-24; column 3, lines 39-43; column 4, lines 34-40) having a discontinuous bond pattern that falls within Applicant's claimed range (column 3, lines 49-50; column 5, lines 35).

Srinivasan teaches that the laminate can be stretched as it exits the calendar rolls (column 3, lines 55-58) thereby implying that the nonwoven webs can be elongated; however, it is unclear as to what this elongation is.

It is known in the art of making laminate elastic fabrics, that can be used as a component in diapers and personal hygiene products, to affix a nowoven fabric web comprised of thermoplastic polymers having a CD elongation of at least 120% to each surface of an elastic film by positioning the film between the nonwovens, with the nonwovens and film being in a substantially relaxed and untensioned state, thermally point bonding the nonwovens to the film by contact with a heated calendar roll having a discontinuous bond pattern, and then stretching the bonded laminate in the MD and/or CD, as taught by Quantrille (column 1, line 64 – column

Art Unit: 1733

2, line 10; column 8, lines 20-27; column 9, lines 4-10 and 30-45 and 59-63; column 10, lines 1-4).

Selection of a CD elongation for the nonwovens of Srinivasan would have been within purview of one having ordinary skill in the art; however, it would have been obvious to use nonwovens having a CD elongation of at least 120% for those of Srinivasan because such is known in the art, as taught by Quantrille, where such a nonwoven lends itself to the stretching step taught by Srinivasan.

Srinivasan also teaches that a variety of elastic films can be used as alternatives to a polyolefin elastic film, such as elastomeric styrene block copolymer film (column 4, lines 9-11; column 6, lines 62-64); however, it is unclear as to whether the reference teaches the film being a vinylidene isoprene polymer. Quantrille teaches that a variety of elastic films, such as a vinylidene isoprene elastic film (i.e. SIS polymer film), can be used as an alternative to polyolefin elastic films to form the laminate (column 8, lines 40-67). Selection of a particular elastic film for that of Srinivasan would have been within purview of one having ordinary skill in the art; however, it would have been obvious to use a vinylidene isoprene polymer for the elastic film of Srinivasan because such is known in the art as an alternative to a polyolefin elastic film, as taught by Quantrille.

Regarding claim 3, Srinivasan in view of Quantrille teaches such (Quantrille at column 8, lines 20-25).

Regarding claim 4, Srinivasan teaches such (Figure 2) and/or Srinivasan in view of Quantrille teaches such (Quantrille at column 3, line 60 – column 4, line 30).

Regarding claim 7, Srinivasan teaches such.

Regarding claim 8, Srinivasan teaches such (column 4, lines 35-40).

Regarding claims 9-10, selection of a basis weight for the nonwovens would have been within purview of one having ordinary skill in the art; however, it would have been obvious to use nonwovens having a basis weight that falls within the claimed range because such is known in the art, as taught by Quantrille (column 10, lines 50-55).

Regarding claim 11, Srinivasan teaches stretching the laminated fabric after attaching the nonwovens to the elastic film (column 3, lines 55-58) but it is unclear as to the direction of stretching. It would have been obvious to one having ordinary skill in the art to stretch the laminated fabric in the MD because it is known in the art to stretch a laminated fabric in the MD and/or CD after attaching nonwovens to an elastic film while the nonwovens and elastic film are in a relaxed, untensioned state, as taught by Quantrille (column 10, lines 1-5).

7. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivasan and Quantrille as applied to claim 1 above, and further in view of Karami et al. (US 4726976).

Regarding claim 2, it is unclear as to whether Srinivasan teaches extrusion coating the elastic film onto the first nonwoven. It is known in the art to extrusion coat a thermoplastic film onto a first nonwoven web, as an alternative to using a pre-formed film, position a second nonwoven web on the exposed surface of the extrusion-coated film, with the nonwovens and film being in a substantially relaxed and untensioned state, and then affix the nonwovens and film to each other using a heated calendar roll having a discontinuous bond pattern that falls within Applicant's claimed range, where extrusion-coating the film improves the securing of the film to the nonwoven, as taught by Karami (Figure 4; column 1, lines 6-8; column 3, lines 50-60; column 4, lines 7-30; column 4, lines 48-55; **column 4, line 68 – column 5, line 4**).

Therefore, it would have been obvious to one having ordinary skill in the art to extrusion coat the film of Srinivasan onto the first nonwoven because such is known in the art as an alternative to using a pre-formed film, as taught by Karami, where this improves the securing of the film to the nonwoven.

Regarding claim 6, selection of a thickness for the film would have been within purview of one having ordinary skill in the art; however, it would have been obvious to use a film having a thickness that falls within Applicant's claimed range because such is known in the art, as taught by Karami (column 4, lines 64-68).

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivasan and Quantrille as applied to claim 1 above, and further in view of Esneault et al. (WO 96/16122).

Regarding claim 5, it would have been obvious to one having ordinary skill in the art at the time of the invention to use the particular claimed elastic material because Esneault teaches that such material is an improvement over other elastic film materials in that it has improved extrusion processing properties, improved stress relaxation properties, improved creep performance, and improved stability during processing, and one of ordinary skill in the art would have been motivated to obtain these advantages (pages 1-4 and 11-14).

9. Claims 1-4 and 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karami in view of Srinivasan and further in view of Quantrille.

With respect to claim 1, and as mentioned in paragraph 7 above, Karami teaches a method of making a laminate fabric, that can be used as a component in diapers and personal hygiene products (column 1, lines 6-8), by providing first and second nonwoven fabric webs 14 and 16 comprised of thermoplastic polymers (column 3, lines 58-64), providing a thermoplastic

Art Unit: 1733

film 12 having a thickness within the claimed range (column 3, lines 53-57; column 4, lines 64-68), positioning the film between the nonwoven webs, in face to face juxtaposition, with the nonwoven webs and film being in substantially relaxed and untensioned states (Figure 4; column 4, lines 7-9), and applying elevated temperature to affix the nonwoven webs to the film, the elevated temperature provided by contact with an engraved calendar roll 18 (Figure 4; column 4, lines 7-30) having a discontinuous bond pattern that falls within Applicant's claimed range (column 4, lines 48-49 and 52-55).

It is unclear as to whether the reference teaches the nonwovens having a CD elongation of at least 120%, the film being elastic, and the film being comprised of a vinylidene isoprene polymer.

It would have been obvious to one having ordinary skill in the art to use an elastic film in the laminate of Karami because it is known in the art to make laminate fabrics, that can be used as a component in diapers and personal hygiene products, using an elastic film as an alternative to a non-elastic film, for the benefit of imparting elastic properties to the laminate, and affixing a nonwoven web to each side of the film, with the nonwovens and film being in a relaxed and untensioned state, using a heated calendar roll having a discontinuous bond pattern, as taught by Srinivasan (column 5, lines 4-6).

Srinivasan also teaches that the laminate can be stretched as it exits the calendar rolls to enhance clarity and size of the apertures that are formed during the calendar bonding process (column 2, lines 52-53; column 3, lines 22-24 and 55-58). Like Srinivasan, Karami also teaches apertures being formed during the calendar bonding process (end of abstract; column 4, lines 20-32); therefore, it would have been obvious to one having ordinary skill in the art to stretch the

Art Unit: 1733

laminate of Karami as it exits the calendar rolls because such it known in the art, as taught by Srinivasan, where this enhances the clarity and size of the apertures. Therefore, since Karami in view of Srinivasan teach stretching the laminate, one would appreciate that the nonwovens of Karami can be elongated; however it is unclear as to what this elongation is.

It is known in the art of making laminate elastic fabrics, that can be used as a component in diapers and personal hygiene products, to affix a nonwoven fabric web comprised of thermoplastic polymers having a CD elongation of at least 120% to each surface of an elastic film by positioning the film between the nonwovens, with the nonwovens and film being in a substantially relaxed and untensioned state, thermally point bonding the nonwovens to the film by contact with a heated calendar roll having a discontinuous bond pattern, and then stretching the bonded laminate in the MD and/or CD, as taught by Quantrille (column 1, line 64 – column 2, line 10; column 8, lines 20-27; column 9, lines 4-10 and 30-45 and 59-63; column 10, lines 1-4).

Selection of a CD elongation for the nonwovens of Karami would have been within purview of one having ordinary skill in the art; however, it would have been obvious to use nonwovens having a CD elongation of at least 120% for those of Karami because such is known in the art, as taught by Quantrille, where such a nonwoven lends itself to the stretching step taught by Karami in view of Srinivasan.

Karami in view of Srinivasan also teach that a variety of elastic films can be used as alternatives to a polyolefin elastic film, such as elastomeric styrene block copolymer film (Karami at column 3, lines 55-56 and Srinivasan at column 4, lines 9-11; column 6, lines 62-64); however, it is unclear as to whether they teach the film being a vinylidene isoprene polymer.

Art Unit: 1733

Quantrille teaches that a variety of elastic films, such as a vinylidene isoprene elastic film (i.e. SIS polymer film), can be used as an alternative to polyolefin elastic films to form the laminate (column 8, lines 40-67). Selection of a particular elastic film for that of Karami would have been within purview of one having ordinary skill in the art; however, it would have been obvious to use a vinylidene isoprene polymer for the elastic film of Karami because such is known in the art as an alternative to a polyolefin elastic film, as taught by Quantrille.

Regarding claim 2, Karami teaches extrusion coating the film (column 4, line 68 – column 5, line 4).

Regarding claim 3, Karami in view of Quantrille teaches such (Quantrille at column 8, lines 20-25).

Regarding claim 4, Karami teaches such (column 3, lines 58-64).

Regarding claim 6, Karami teaches such (column 4, lines 64-68).

Regarding claim 7, Karami teaches such (Figure 4).

Regarding claim 8, Karami teaches such (column 4, lines 20-31).

Regarding claims 9-10, Karami teaches such (column 5, lines 9-11).

Regarding claim 11, and as discussed above, Karami in view of Srinivasan teach stretching the laminated fabric after attaching the nonwovens to the elastic film (Srinivasan at column 3, lines 55-58) but it is unclear as to the direction of stretching. It would have been obvious to one having ordinary skill in the art to stretch the laminated fabric in the MD because it known in the art to stretch a laminated fabric in the MD and/or CD after attaching nonwovens to an elastic film while the nonwovens and elastic film are in a relaxed and untensioned state, as taught by Quantrille (column 10, lines 1-5).

Art Unit: 1733

10. Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Karami and Srinivasan and Quantrille as applied to claim 1 above, and further in view of Esneault.

Regarding claim 5, it would have been obvious to one having ordinary skill in the art at the time of the invention to use the particular claimed elastic material because Esneault teaches that such material is an improvement over other elastic film materials in that it has improved extrusion processing properties, improved stress relaxation properties, improved creep performance, and improved stability during processing, and one of ordinary skill in the art would have been motivated to obtain these advantages (pages 1-4 and 11-14).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard D. Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1733

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JESSICA ROSSI
PRIMARY EXAMINER

